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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/721,627

11/25/2003

Mike Suekawa

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01/23/2006

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EXAMINER

NGUYEN, HUNG THANH

ART UNIT

PAPER NUMBER

2841

DATE MAILED: 01/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

8

Office Action Summary	Application No. 10/721,627	Applicant(s) SUEKAWA ET AL.	
	Examiner HUNG T. NGUYEN	Art Unit 2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 21 is/are pending in the application.
- 4a) Of the above claim(s) 14-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

Newly submitted claims 22-28 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 22-28 recite "an apparatus adapted for usage in an electronic device" which was not originally claimed. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 22-28 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claims 22-28 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as

being drawn to a nonelected group, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on 11/18/2005.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1-5, 7-11 and 21 rejected under 35 U.S.C. 102(b) as being anticipated by Hayashi (US 4901204).

Regard claim 1, 21: Hayashi discloses in figure 12 a printed circuit assembly carrier comprising: a carrier frame (embodiment of figure 12) configured to hold a selected

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printed circuit assembly (73, 74) of at least two different printed circuit assemblies (73, 74) in at least two different orientations (as shown in figure 12, boards are capable of placing in different orientation); a first toolless retention (24) feature coupled to a first surface of the carrier frame (embodiment of figure 12) and configured to retain the selected printed circuit assembly (73, 74); and a second toolless retention (58) feature coupled to a second surface of the carrier frame (embodiment of figure 12) and configured to retain another printed circuit assembly (73, 74) in at least one of the orientations.

Regard claim 2: Hayashi discloses the carrier frame (explain in claim 1) is constructed from molded plastic (see column 3, line 38-40).

Regard claim 3: Hayashi discloses in figure 12 the carrier frame (explain in claim 1) comprises a first member (24, 76) having parallel opposing planar surfaces including an interior planar surface (the surface below mounting board 73) and an exterior planar surface (the surface 's base of 72), the exterior planar surface (the surface's base of 72) being the first surface coupled to the first toolless retention (24) feature, the interior planar surface the surface's base of 72) being capable of receiving and retaining the selected printed circuit assembly (explain in claim 1).

Regard claim 4: Hayashi discloses in figure 12 the carrier frame (explain in claim 1) comprises a second member (17, 77) coupled at an end of the first member (24, 76) substantially perpendicular to the first member (24, 76), the second member (17, 77) extending beyond the interior planar surface (explain in claim 3) to the second surface

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(104 in figure 13) that couples to the second toolless retention (explain in claim 1) feature.

Regard claim 5: Hayashi disclose the carrier frame is constructed from plastic (explain in claim 2); and the first (explain in claim 1) and second toolless retention (explain in claim 1) features are plastic snaps extending from the carrier frame (explain in claim 1).

Regard claim 7: Hayashi discloses in figure 12 an electronic device assembly comprising: a housing (see abstract); first (explain in claim 1) and second printed circuit assemblies (explain in claim 1) of respective first (explain in claim 1) and second (explain in claim 1) types capable of coupling to the housing (see abstract); a plurality of identical printed circuit assembly carriers (see figure 12 of board assembly carriers to hold boards 2, 4, 6) capable of coupling the first (explain in claim 1) and second printed circuit assemblies (explain in claim 1) to the housing (see abstract), the carriers coupling the printed circuit assemblies of different types to the housing (see abstract) in different orientations (as shown in figure 12, boards are capable of placing in different orientation) via toolless retention (58, 76) features.

Regard claim 8: Hayashi discloses 1, 2 the electronic device assembly further comprising: a third printed circuit assembly (boards 6) capable of coupling to a side of the housing (see abstract).

Regard claim 9: Hayashi discloses in figure 1, 2 the electronic device assembly further comprising: a third printed circuit assembly (board 6) capable of coupling to a side of the housing (see abstract), the third printed circuit assembly (board 6) being substantially planar and having a first planar (lower surface side of board 6 which is its side facing

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downward) side capable of coupling to the housing (see abstract) and a second opposing planar side, wherein a first (explain in claim 1) of the plurality of identical printed circuit assembly carriers (embodiment of figure 12) couples the first printed circuit assembly (explain in claim 1) to the second planar side of the third printed circuit assembly (see figure 1, 2 of board 6).

Regard claim 10: Hayashi discloses the electronic device assembly further comprising: a third printed circuit assembly (explain in claim 8) capable of coupling to a side of the housing (see abstract), the third printed circuit assembly (explain in claim 8) being substantially planar and having a first planar side (explain in claim 9) capable of coupling to the housing (see abstract) and a second opposing planar side, wherein a second of the plurality of identical printed circuit assembly carriers (embodiment of figure 12) couples the second printed circuit assembly (explain in claim 1) substantially perpendicular to the third printed circuit assembly (explain in claim 8).

Regard claim 11: Hayashi discloses the electronic 1, 2 device assembly wherein the second printed circuit assembly (4) and the second of the two identical printed circuit assembly carriers (embodiment of figure 12) are implemented for usage of the electronic device assembly in a duplex configuration.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6, 12, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi (US 4,901,204) in view of Gaio et al (US 5,901,263) and Solheid et al. (US 2004/0146266)

Regard claim 6, 13: Hayashi discloses all the elements of an electronic device assembly as described above with respect to claim 7 except Hayashi does not disclose the cable retention.

Solheid et al. discloses the cable retention.

Hayashi and Solheid et al. are analogous art because they are from the same field of endeavor to make electronic assemblies.

At the time of invention, it would have been obvious to a person of ordinary skill in the art, to make of Hayashi in the assembly of Solheid include the retention.

The suggestion or motivation for doing so would have been obvious in view of the teaching of Solheid et al. that having cable retention is good to organize the loose wires and keep space for chassis.

Regard claim 12: Hayashi discloses all the elements of an electronic device assembly as described above with respect to claim 7 except Hayashi does not disclose the hard disk drive and the duplex printed circuit assembly.

Gaio et al. discloses the hard disk drive and the duplex printed circuit assembly.

Hayashi and Gaio et al. are analogous art because they are from the same field of endeavor to make electronic assemblies.

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At the time of invention, it would have been obvious to a person of ordinary skill in the art, to attach of Hayashi in the assembly of Gaio et al. included the hard disk drive and duplex printed circuit assembly.

The suggestion or motivation for doing so would have been obvious in view of the teaching of Gaio et al. that having the hard disk drive is used for the storage and duplex printed circuit assembly is to provide the duplex communication.

Response to Arguments

Applicant's arguments filed 11/18/2005 have been fully considered but they are not persuasive.

Regard claim 1: applicant argues that "a carrier frame configured to hold a printed circuit assembly of at least two different printed circuit assembly types that respectively mount in at least two different orientations". This argument is not found to be persuasive because Hayashi discloses two different sizes of circuit boards 73, 74 as it appears in figure 12 and Hayashi also shown in figure 12 that circuit assembly configured to hold at two different orientations as it appears to be in open and close state.

The remainder of the argument are moot in view of the claim amendments.

Relevant Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Ruff (US 6831840) teaches the bracket assembly, Spychalla (US 2005/011249) teaches the data storage and Laub (US 5713744) teaches the integrate circuit socket

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG T. NGUYEN whose telephone number is 571-272-5983. The examiner can normally be reached on 8:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KAMMIE CUNEO can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

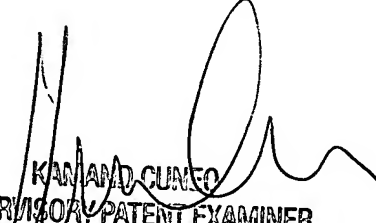
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HUNG THANH NGUYEN

1/10/06

HN


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